1. (Currently Amended) A method for determining a position of a moving platform, the method comprising:

transmitting a carrier signal from one of the moving platform and a stationary platform;

receiving a received signal at the other of the moving and stationary platforms;

deriving a frequency shift between the carrier signal and the received signal; and

calculating the apparent closing velocity using the frequency shift and a frequency of the carrier signal; wherein calculating the apparent closing velocity comprises using the equation:

$$f_d(t) = \frac{f_c v_c(t)}{c} + f_m + n(t)$$

wherein fd(t) represents the frequency shift, fc represents a center frequency of the carrier signal, c represents a speed of radio propagation, fm is a constant frequency offset between local oscillators at the transmitter and the receiver system, n(t) represents a measurement noise and vc(t) represents the apparent closing velocity.

2. (Original) The method of claim 1, wherein determining the position of the moving platform comprises monitoring the closing velocity over a period of time.

3. (Canceled)

4. (Currently Amended) The method of claim 3 1, wherein the apparent closing velocity is characterized by a measured shape described by $\cos(\theta(z))$, wherein z represents the distance that the moving platform has traveled and θ represents a location-varying angle.

5. (Original) The method of claim 4, further comprising determining a course of the moving platform by comparing the measured shape to a plurality of stored shapes.

6. (Original) The method of claim 5, wherein the comparing comprises using sequential statistical methods.

7. (Original) The method of claim 1, wherein deriving the frequency shift comprises analyzing a frequency spectrum corresponding to the received signal.

8. (Original) The method of claim 1, wherein deriving the frequency shift comprises generating a spread spectrum of the received signal.

9. (Original) The method of claim 8, wherein generating a spread spectrum further comprises generating a spectral line at twice the frequency of a Doppler shift of the received signal.

10. (Original)   The method of claim 9, wherein the Doppler shift is determined using a center frequency of the received signal.

11. (Original)   The method of claim 10, wherein the center frequency of the received signal is determined by homodyning the spread spectrum of the received signal.

12. (Original)   The method of claim 1, wherein the stationary platform comprises a plurality of stationary platforms.

13. (Currently Amended) ~~The method of claim 1,~~ A method for determining a position of a moving platform, the method comprising:
    transmitting a carrier signal from one of the moving platform and a stationary platform;
    receiving a received signal at the other of the moving and stationary platforms;
    deriving a frequency shift between the carrier signal and the received signal; and
calculating the apparent closing velocity using the frequency shift and a frequency of the carrier signal; wherein the stationary platform comprises a transmitter coupled to a railway track.

14. (Original)   The method of claim ~~12~~13, wherein the transmitter is coupled to a turnout on the railway track.

15. (Original)   The method of claim 1, wherein the stationary platform comprises a mobile communication platform base station.

16. (Original)   The method of claim 1, wherein the stationary platform comprises a broadcast station.

17. (Original)   The method of claim 1, wherein the stationary platform comprises a cellular network station.

18.   (Currently Amended) ~~The method of claim 1,~~ A method for determining a position of a moving platform, the method comprising:
    transmitting a carrier signal from one of the moving platform and a stationary platform;
    receiving a received signal at the other of the moving and stationary platforms;
    deriving a frequency shift between the carrier signal and the received signal; and
calculating the apparent closing velocity using the frequency shift and a frequency of the carrier signal; wherein the moving platform is a locomotive.

19. (Original)   The method of claim 1, wherein the carrier signal comprises radio frequency signals.

20. (Currently Amended)   A system for determining a position of a moving platform, the system comprising:
a transmitter configured for transmitting a carrier signal from one of the moving platform and a stationary platform;

a receiver system configured for receiving a received signal from the other of the moving and stationary platforms, the receiver system further comprising:

a processor configured for:

(i)   deriving a frequency shift between the carrier signal and the received signal;

(ii)   calculating the apparent closing velocity angle using the frequency shift and a frequency of the carrier signal, wherein the processor is configured for deriving the apparent closing velocity using the equation:

$$f_d(t) = \frac{f_c v_c(t)}{c} + f_m + n(t)$$

wherein fd(t) represents the frequency shift, fc represents a center frequency of the carrier signal, c represents a speed of radio propagation, fm is a constant frequency offset between local oscillators at the transmitter and at the receiver system, n(t) represents a measurement noise and vc(t) represents the apparent closing velocity.

21. (Original)   The system of claim 20, wherein the processor is further configured for determining the position of the moving platform by monitoring the apparent closing velocity over a period of time.

22.   (Canceled)

23. (Original)   The system of claim 20, wherein the processor is further configured to characterize the apparent closing velocity by a measured shape described by $\cos(\theta(z))$, wherein z represents the distance that the moving platform has traveled and θ represents a location-varying angle.

24. (Original)   The system of claim 23, wherein the processor is further configured for determining a course of the moving platform by comparing the measured shape to a plurality of stored shapes.

25. (Original)   The system of claim 24, wherein processor is configured for comparing the measured shape to a plurality of stored shapes using sequential statistical methods.

26. (Original)   The system of claim 20, wherein the transmitter is coupled to the stationary platform and the processor is configured to derive the frequency shift by analyzing a frequency spectrum of the received signal.

27. (Original)   The system of claim 20, wherein the processor is configured for the deriving the frequency shift by generating a spread spectrum of the received signal.

28. (Original)   The system of claim 27, wherein the processor further comprises a spread spectrum system configured for generating a spectral line at twice the frequency of a Doppler shift of the received signal.

29. (Original)   The system of claim 28, wherein the Doppler shift is determined using a center frequency of the received signal.

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30. (Original)   The system of claim 29, wherein the center frequency of the received signal is determined by homodyning the spread spectrum of the received signal.

31. (Original)   The system of claim 20, wherein the carrier signal comprises radio frequency signals.

32. (Original)   The system of claim 20, wherein the stationary platform comprises a plurality of stationary platforms.

33.   (Currently Amended)The system of claim 20,   A system for determining a position of a moving platform, the system comprising:
a transmitter configured for transmitting a carrier signal from one of the moving platform and a stationary platform;
a receiver system configured for receiving a received signal from the other of the moving and stationary platforms, the receiver system further comprising:
a processor configured for:
(i)   deriving a frequency shift between the carrier signal and the received signal;
(ii)   calculating the apparent closing velocity angle using the frequency shift and a frequency of the carrier signal, wherein the stationary platform comprises a transmitter coupled to a railway track.

34. (Original)   The system of claim 33, wherein the transmitter is coupled to a turnout on the railway track.

35. (Original)   The system of claim 20, wherein the stationary platform comprises a mobile communication platform base station.

36. (Original)   The system of claim 20, wherein the stationary platform comprises a broadband station.

37. (Original)   The system of claim 20, wherein the stationary platform comprises a cellular network base station.

38.   (Currently Amended)   The system of claim 20, A system for determining a position of a moving platform, the system comprising:
a transmitter configured for transmitting a carrier signal from one of the moving platform and a stationary platform;
a receiver system configured for receiving a received signal from the other of the moving and stationary platforms, the receiver system further comprising:
a processor configured for:
(i)   deriving a frequency shift between the carrier signal and the received signal;
(ii)   calculating the apparent closing velocity angle using the frequency shift and a frequency of the carrier signal, wherein the moving platform comprises a locomotive.

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39. (Original)   The system of claim 20, wherein the receiver system is coupled to the moving platform.

40. (Original)   The system of claim 20, wherein the receiver system is coupled to the stationary platform.

41. (Currently Amended)   A system for determining a position of a moving platform , the system comprising:
means for transmitting a carrier signal from one of the moving platform and a stationary platform;
means for receiving a received signal at the other of the moving and stationary platforms;
means for deriving a frequency shift between the carrier signal and the received signal;
means for calculating the apparent closing velocity using the frequency shift, a frequency of the carrier signal;
wherein the means for calculating the apparent closing velocity shift comprising using the equation:

$$f_d(t) = \frac{f_c \, v_c(t)}{c} + f_m + n(t)$$

wherein fd(t) represents the frequency shift, fc represents a center frequency of the carrier signal, c represents a speed of radio propagation, fm is a constant frequency offset between local oscillators at the transmitter and at the receiver system, n(t) represents a measurement noise and vc(t) represents the apparent closing velocity.

42. (Original)   The system of claim 41, determining the position of the moving platform further comprises means for monitoring the apparent closing velocity over a period of time.

43.   (Canceled)

44. (Original)   The system of claim 43, wherein the means for calculating the apparent closing velocity comprises means for characterizing the apparent closing velocity by a measured shape described by $\cos(\theta(z))$, wherein z represents the distance that the moving platform has traveled and θ represents a location-varying angle.

45. (Original)   The system of claim 44, further comprising means for determining a course of the moving platform by comparing the measured shape to a plurality of stored shapes.

46. (Original)   The system of claim 41, wherein the means for deriving the frequency shift comprises means for analyzing a frequency spectrum corresponding to the received signal.

47. (Original)   The system of claim 41, wherein the means for deriving the frequency shift comprises means for generating a spread spectrum of the received signal.

48. (Original)   The system of claim 47, wherein the means for generating the spread spectrum further comprises means for generating a spectral line at twice the frequency of a Doppler shift of the received signal.

49. (Original)   A system for determining a position of a moving platform, the system comprising:

a transmitter configured for transmitting a modulated carrier signal;

a receiver system configured for demodulating a received carrier signal, the receiver system further comprising a processor configured for

deriving a frequency shift between the carrier signal and the received signal,

calculating an apparent closing velocity using the frequency shift of the received signal relative to a center frequency of the transmitted carrier signal, and

estimating the position of the moving platform by monitoring the apparent closing velocity over a period of time.

50. (Original)   The system of claim 49, wherein the processor is configured for calculating the apparent closing velocity using the equation:

$$f_d(t) = \frac{f_c v_c(t)}{c} + f_m + n(t)$$

wherein fd(t) represents the frequency shift, fc represents a center frequency of the carrier signal, c represents a speed of radio propagation, fm is a constant frequency offset between local oscillators at the transmitter and at the receiver system, n(t) represents a measurement noise and vc(t) represents the apparent closing velocity.

51. (Original)   The system of claim 50, wherein the processor is further configured to characterize the apparent closing velocity by a measured shape described by $\cos(\theta(z))$, wherein z represents the distance that the moving platform has traveled and θ represents a location-varying angle.

52. (Original)   The system of claim 51, wherein the processor is further configured for determining a course of the moving platform by comparing the measured shape to a plurality of stored shapes.

53. (Original)   The system of claim 52, wherein processor is configured for comparing the measured shape to a plurality
of stored shapes using sequential statistical methods.

54. (Original)   The system of claim 49, wherein the transmitter is coupled to the stationary platform and the processor is configured to derive the frequency shift by analyzing a frequency spectrum of the received signal.

55. (Original)   The system of claim 49, wherein the processor is configured for the deriving the frequency shift by generating a spread spectrum of the received signal.

56. (Original)   The system of claim 55, wherein the processor further comprises a spread spectrum system configured for generating a spectral line at twice the frequency of a Doppler shift of the received signal.

57. (Original)   The system of claim 56, wherein the processor is further configured for determining the Doppler

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shift by using a center frequency of the received signal.

58. (Original)   The system of claim 57, wherein the center frequency of the received signal is determined by homodyning the spread spectrum of the received signal.

59. (Original)   The system of claim 49, wherein the moving platform is a locomotive.

60. (Original)   The system of claim 59, wherein the stationary platform comprises a plurality of stationary platforms.